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Access and utilization of oral health care and tobacco use in patients with severe mental illness: Impact on oral health outcomes

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OBJECTIVES/GOALS: Our objective is to evaluate how access to oral health care and tobacco use in patients with serious mental illness (SMI) impact their oral health outcomes identifying barriers and service utilization disparities affecting the prevalence and severity of oral diseases. METHODS/STUDY POPULATION: A secondary retrospective data analysis study will use records from the electronic database (All of Us). The study population includes individuals over 21 years old, diagnosed with SMI. Data will be collected focusing on their oral health status, access to oral health care (frequency of visits, availability of services, etc.), tobacco use, and social determinants of health. The study will evaluate the impact of access to oral health care on the prevalence of oral health outcomes (e.g., periodontal diseases and oral cancer), analyzing socioeconomic factors, mental health status, and tobacco use as independent variables. A quantitative, descriptive-correlational analysis will be performed to explore the study variables. RESULTS/ANTICIPATED RESULTS: We anticipate that limited access to oral health care, influenced by socioeconomic factors, the presence of SMI, and tobacco use, will correlate with worse oral health outcomes in Hispanics. Disparities in access, such as financial limitations, transportation issues, and stigma, are expected to significantly hinder service utilization and increase the prevalence of oral diseases in patients with SMI who smoke. DISCUSSION/SIGNIFICANCE OF IMPACT: This research highlights the need to address disparities in oral health access for Hispanic marginalized populations, particularly those with severe mental illness and tobacco use. It will contribute to reducing health inequalities and improving oral health outcomes through culturally adapted interventions that address these barriers.

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Use of the engage for equity framework to longitudinally assess community–academic partnerships

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OBJECTIVES/GOALS: Audience will understand the engage for equity CBPR conceptual framework used to develop our partnership survey. Audience will better understand our survey design and administration process. Audience will understand our initial experiences, community advisory board member responses, and how the process influenced our engagement efforts. METHODS/STUDY POPULATION: The objective of this assessment is to understand how our community partners perceive our engagement efforts. The questionnaire is based on the 12 constructs of the CBPR engage for equity model. We plan on annually assessing impact and refining engagement approaches in response to community partners'

perspectives. Community Advisory Board members and other partners will complete an online survey and participate in a subsequent discussion and planning session about the responses. We anticipate evaluating approximately 400 community partners who collaborate with the Wright Regional Clinical and Translational Science Awards between 2023 and 2030 with a RedCAP survey and discussion. The instrument uses validated questions from a range of engagement instruments to assess context, partnership structure, processes, outputs, and outcomes. RESULTS/ANTICIPATED RESULTS: We hypothesize that both the survey and subsequent discussion about how respondents reacted to answering the questions will improve our ability to track and adapt our community engagement efforts. DISCUSSION/SIGNIFICANCE OF IMPACT: Our annual survey is not project specific and using it longitudinally will inform our engagement process to research that aligns with community needs. We anticipate this will help us to guide our research agenda to align with community needs and define impact of our university–community partnership.

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Co-designing a health technology intervention through patient-centered collaboration within a large randomized controlled trial: A community-informed approach*

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OBJECTIVES/GOALS: This project provides a framework for collaborative design of a health technology intervention. We aim to provide guidance for those seeking to incorporate community-informed insights into their intervention development, particularly within the context of a large randomized controlled trial. METHODS/STUDY POPULATION: As part of the patient engagement arm of the Championing Hypertension Remote Monitoring for Equity and Dissemination study, we designed patient-facing intervention components for a home hypertension monitoring system. In the design process, we convened patient consultants via regular meetings, one-on-one interviews, and focus groups, and then subsequently analyzed meeting recordings, audio transcripts, and stakeholder notes. All design sessions were offered in either English or Spanish, and sixteen participants were involved. An inductive thematic analysis is being performed utilizing two coders, and Dedoose has been used to organize and refine the data. RESULTS/ANTICIPATED RESULTS: The randomized trial will begin late 2024, with overall design findings incorporated into the intervention. A more detailed qualitative analysis will map these design findings to overarching theory from the Technology Acceptance Model. These qualitative themes will provide a model of patient involvement in study design in a large randomized controlled trial, potentially guiding future improvements in technology-based healthcare delivery interventions. DISCUSSION/SIGNIFICANCE OF IMPACT: As technology becomes integral to healthcare, involving patients in intervention design and rollout can improve efficacy and utilization. By offering